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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,892	12/21/2001	Steven Gerard Mayorga	06223 USA	5094
23543	7590	02/13/2004	EXAMINER	
AIR PRODUCTS AND CHEMICALS, INC. PATENT DEPARTMENT 7201 HAMILTON BOULEVARD ALLENTOWN, PA 181951501			MOORE, MARGARET G	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/029,892	<b>Applicant(s)</b> MAYORGA ET AL.	
	<b>Examiner</b> Margaret G. Moore	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4 to 7, 12 to 17, 20 to 23, 25 to 35 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 to 7, 15 to 17, 20 to 23, 25 to 32, 34 is/are allowed.
- 6) ☒ Claim(s) 12-14, 33 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Claims 4 to 7, 15 to 17, 20 to 23, 25 to 32 and 34 are allowed. Many of these claims were allowed in the previous office action. Applicants deleted the claims that were previously rejected under 35 U.S.C. 102 and have added new claims 31, 32 and 34. The inhibitor in claims 31 and 32 in combination with the cyclosiloxane required in these claims is neither taught nor suggested by the prior art. Additionally the prior art fails to teach or suggest the combination of cyclosiloxane, inhibitor and free radical scavenger found in claim 34. Regarding claim 21, applicants correctly note that the JP reference cited in the previous office action fails to teach the addition of a free radical scavenger.

2. With regards to claim 15, the Examiner must disagree with applicants' comments found on page 10 of their remarks. They state that claim 15 need not be limited by the requirement that "the cyclosiloxane be stabilized and be able to be used in a chemical vapor deposition process", as previously asserted by the Examiner in the previous office action. This, however, is in direct contrast with the language found in claim 15. The process in claim 15 is a *process for stabilizing* 1,3,5,7 tetramethylcyclotetrasiloxane by providing a neutral to weakly acidic polymerization inhibitor thereto and by providing a free radical scavenger thereto.; the cyclosiloxane prepared therein **must** be stabilized. In addition, the language in claim 15 "used in a chemical vapor deposition process for silicon oxides in electronic material fabrication" *requires* that the cyclosiloxane therein be *able* to be used in such a chemical vapor deposition process. The Examiner did not state that the stabilized cyclosiloxanes prepared by the process of claim 15 must be used in such a fabrication, but it must be able to be used in such a fabrication.

In addition, in reference to claim 15, applicants state that "in some embodiments, the cyclosiloxane can be stabilized by the free radical scavenger alone". The Examiner stresses that in no embodiment of claim 15 can the cyclosiloxane be stabilized by the free radical scavenger alone. Only newly added claims 33 and 35 are drawn to a combination of the cyclosiloxane and a free radical scavenger (as all of the other claims require at least the polymerization inhibitor).

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3. Finally, to clarify, page 10 of applicants response indicates that claims 1-3, 8-10, 18, 19 and 24 have been cancelled, when in fact claim 11 has been cancelled as well.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 33 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Burnier.

Burnier teaches organosilicon compositions containing stabilizers, specifically a hindered phenol and a hindered amine or aromatic amine. Particularly note Example 4, which combines MHCS (a cyclosiloxane mixture defined on the top of column 8 and containing 1,3,5,7 tetramethylcyclotetrasiloxane) with a hindered phenol and a hindered amine. This forms a distinct mixture that anticipates the instant claims. While Burnier subsequently react the cyclosiloxane, patentee clearly form a composition containing (a) and (b) as found in claim 35.

Regarding claim 33, the process therein can stabilize against any type of polymerization. Even though the cyclosiloxane in Burnier subsequently undergoes hydrosilation, it is stabilized against other types of polymerization such as that caused by oxidation and thus meets this limitation. The Examiner notes that the phrase "stabilizing 1,3,5,7 tetramethylcyclotetrasiloxane against polymerization" as used in the context of the instant claims does not refer to hydrosilation. On the other hand, since Burnier anticipate the claimed process steps per se, any property inherently associated with the claimed process will likewise be inherently associated with the process in Burnier.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 12 to 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burnier.

With regards to claim 12 note that column 7, line 15, teaches 2,6 di-t-butylphenol. As such one having ordinary skill in the art would have been motivated by the teachings of Burnier to use such a hindered phenol in the process of Example 4, thereby rendering this claim obvious.

Regarding claims 13 and 14, note that column 7, lines 45 to 50, teach amounts of stabilizer that embrace those claimed. It has been held that when the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (i.e. does not require undue experimentation).

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Margaret G. Moore  
Primary Examiner  
Art Unit 1712

mgm  
2/5/04